

REMARKS

The Office Action dated October 7, 2004, has been carefully reviewed and the foregoing amendment has been made in response thereto. Claims 1, 9 and 15 stand rejected under 35 U.S.C. 102(b) as anticipated by Howard (U.S. Patent 6,003,887).

The valve recited in claim 1 opens and closes communication through the valve between a fluid pressure source and a clutch. The Office action refers to a valve 275 for performing that function, but the '887 patent says that valve 275 is a solenoid actuated pneumatic cutoff valve, preceded by a restrictor orifice 285, which limits the flow rate of gas from a compressed gas source 278 to a pressure regulator 281, which supplies gas chamber 266. Hydraulic fluid from chambers 298 and 304 is supplied to a brake servo, whose piston 104 actuates a brake band. (See column 20, lines 24-29, Figs. 10, 18). The valve 275 is not a manually operated valve hydraulically connected to a source and that opens and closes hydraulic communication. Valve 275 is located in a pneumatic circuit and does not control communication to a clutch. Yet the valve of this application defined by the amended claims is located in a hydraulic circuit, and it opens and closes fluid communication to a clutch. Claim 1 has been amended to more specifically indicate that the valve is a manually operated hydraulic valve.

The Office action refers to a seat, specifically spacer 122. Claim 1 has been amended to indicate that the seat is located in a fluid flow path between the valve and the clutch. The spacer 122, as shown in Figures 8-13, as described in the '887 patent is a spacer plate for holding ball bearings 120 apart at substantially equal spacing. It is not located in a fluid flow path and is not associated with the hydraulic circuit. Instead it is a plate that holds ball bearings 120 supporting a cam ring 52' for rotation relative to the housing wall 56' when a conical outer surface 54' is not in frictional engagement with a conical housing surface 112. The ball bearings may rotatably support a cam ring having a flat lower edge, but the bearings preferably travel in a circular race 124 on the lower side of the cam ring 52' opposite to race 118 in the track plate 14 (Column 16, lines 6-14). Claim 1 has been amended to recite that the seat is located in a fluid flow path between

the valve and the clutch. The spacer 122, as shown in Figures 8-13 of the '887 patent, is not located in a fluid flow path and is not associated with a hydraulic circuit. Yet the claims of this application define the invention in these terms.

The Office action refers to plate 100 being movable by fluid flow in first and second directions. The Office action implies that release plate 100 is comparable to the plate recited in the independent claims of this application. Actually, there is no structural or functional relationship between release plate 100 and plate recited in the claims. The movable plate recited in the independent claims of the present application moves due to fluid flow in opposite directions so that the plate seats and unseats, i.e., the plate contacts the seat and moves away from the seat in response to fluid flow. Furthermore, claim 1 recites that the plate has an orifice, through which fluid enters the clutch when the plate contacts the seat, and openings, through which fluid flowing from the clutch passes when the plate is away from the seat. The plate recited in the independent claims of this application is orifice plate 68.

Refer now specifically to column 16, lines 30-43, the text which the Office actions refers. The cam ring 52 is shown in Figure 12 in the released condition, where it is out of contact with the inner surface 112 of housing wall 56 prime, and in Figure 13. When cylinder 106 is pressurized, the released conditioned is produced. When cylinder 106 is pressurized, piston 104 moves from the position shown in Figure 10 to the position shown in Figure 11. This displacement of piston 104 causes release plate 100 to drive release bearings 96 up the ramps 94, which are shown in Figure 13. As the release bearings 96 move up ramps 94, track plate 114 is raised, spacer plate 122 is raised, and cam ring 52 is raised relative to the housing wall 56.

From this discussion, it is clear that the plate of the independent claims of this application bear no resemblance whatsoever to the release plate or track plate 100, to which the Office action refers. Specifically the plate recited in the claims of this application is formed with an orifice, through which fluid enters the clutch. The release plate 100 contains no orifice that permits fluid flow; instead, release plate 100 moves in

response to displacement of piston 106 causing rollers 96 to move on ramps 94. The plate recited in the independent claims of this application moves in response to fluid flow into and out of contact with the seat, but release plate 100 is not in contact with seat 122 at any time. According to the claims of this application, the plate is moved by fluid flow in opposite directions. Tracking plate 100 does not move in response to fluid flow and moves merely in response to displacement of piston 104. The piston is actuated by differential pressure in cylinder 106. Furthermore, the plate defined by the claims of this application includes openings through which fluid flows from the clutch when the plate is away from the seat. There are no openings in tracking plate 100 through which fluid flows.

There appears to be some confusion regarding the examination of this application. The control system defined by the claims is a hydraulic system and the components recited in the claims are components of that hydraulic system. The seat and plate components of the '887 patent, are components of a mechanical system which is only actuated by differential fluid pressure, but those components are not components of a hydraulic or pneumatic fluid system. As pointed out in this discussion, there is little about the system of the '887 patent that applies to the system defined in the claims of the subject application.

In view of the foregoing amendment and remarks, claims 1-20 define the invention over the prior art references, and are now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "F G McKenzie", written in dark ink.

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